

tidyCDISC

An open source platform in R to analyze clinical trial data

Maya Gans, Cytel
Nate Mockler, Biogen



OVERVIEW

- PACKAGE DESCRIPTION
- DATA STRUCTURE
- USE CASE
- DEMO
- CONCLUSIONS

tidyCDISC

**An open source application to
interactively create tables,
figures, and patient profiles
from ADaM data**

Filter Data ▾

Type of Chart:

☒ Scatter Plot

☐ Spaghetti Plot

☐ Box Plot

Select x-axis:

Explanatory Variable: BILI ▾

Select Week: Baseline ▾

Value: AVAL CHG BASE

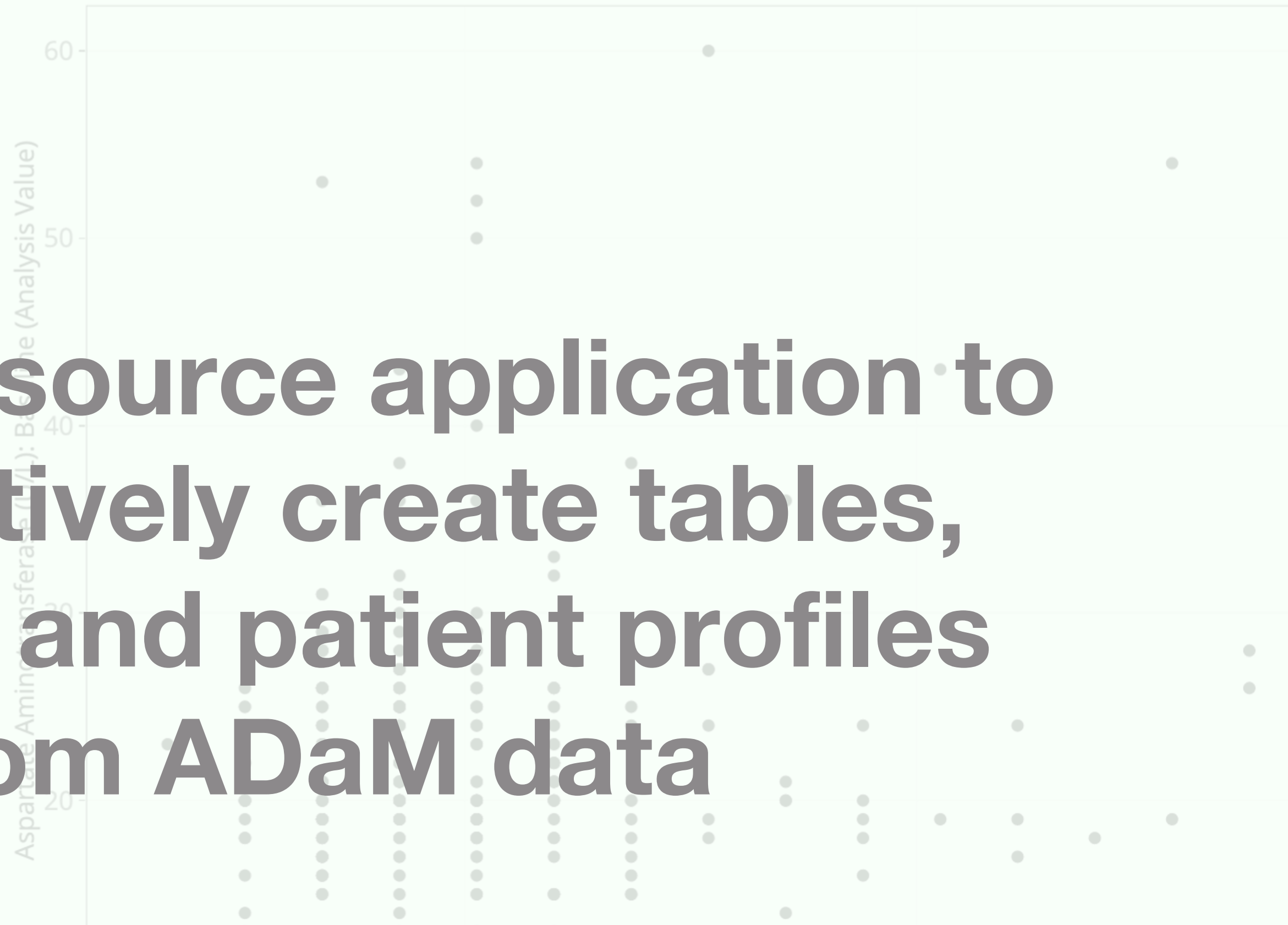
Select y-axis:

Response Variable: AST ▾

Select Week: Baseline ▾

Value:

Aspartate Aminotransferase (U/L) versus Bilirubin (umol/L)



DATA STRUCTURE

ID	X
1	X1
2	X2

ID	PARAM	VAL
1	A	100
2	B	200

ID	PARAM	VAL
1	C	300
2	D	400

DATA STRUCTURE

ID	X	PARAM	VAL
1	X1	A	100
1	X1	C	300
2	X2	B	200
2	X2	D	400

The Clinical Trial Team

Aika

MD, Clinical Head



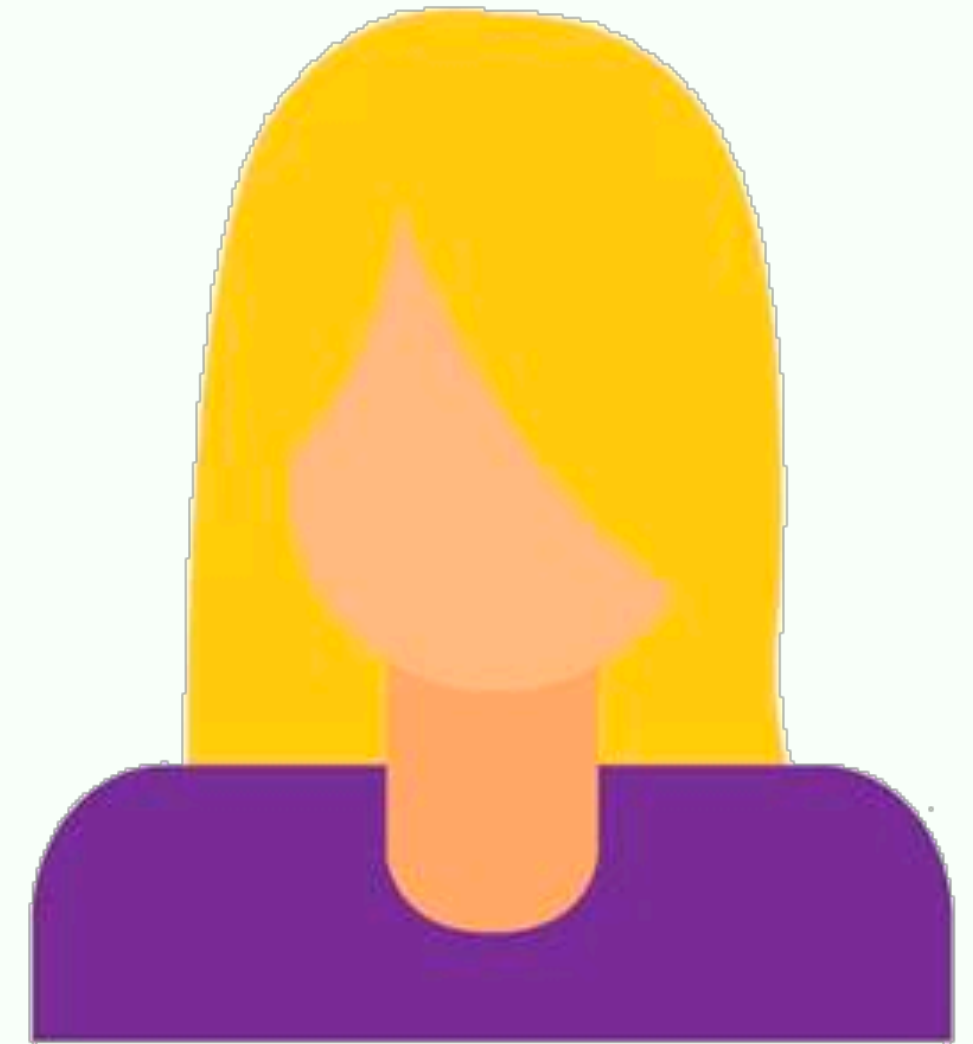
Will

Head Statistician



Monica

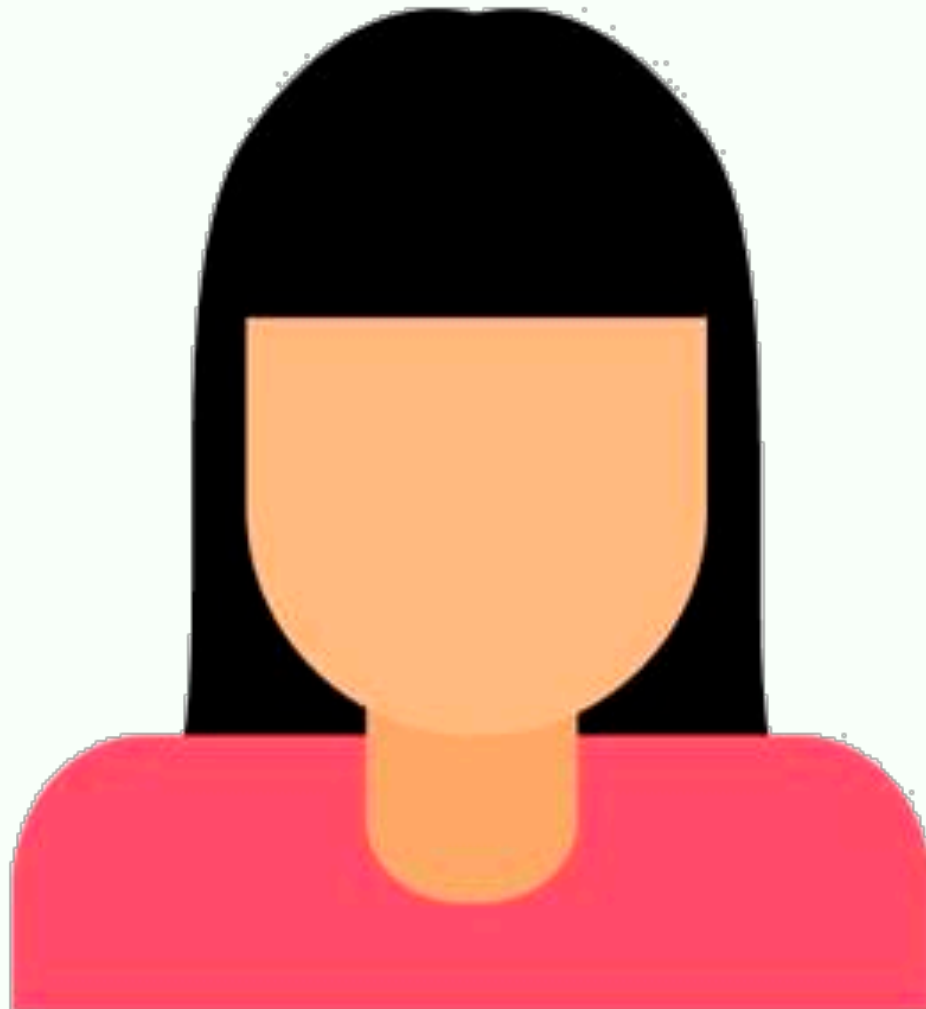
Programmer



Will meets with **Aika** to create statistical models to be used in the study.

Aika

MD, Clinical Head



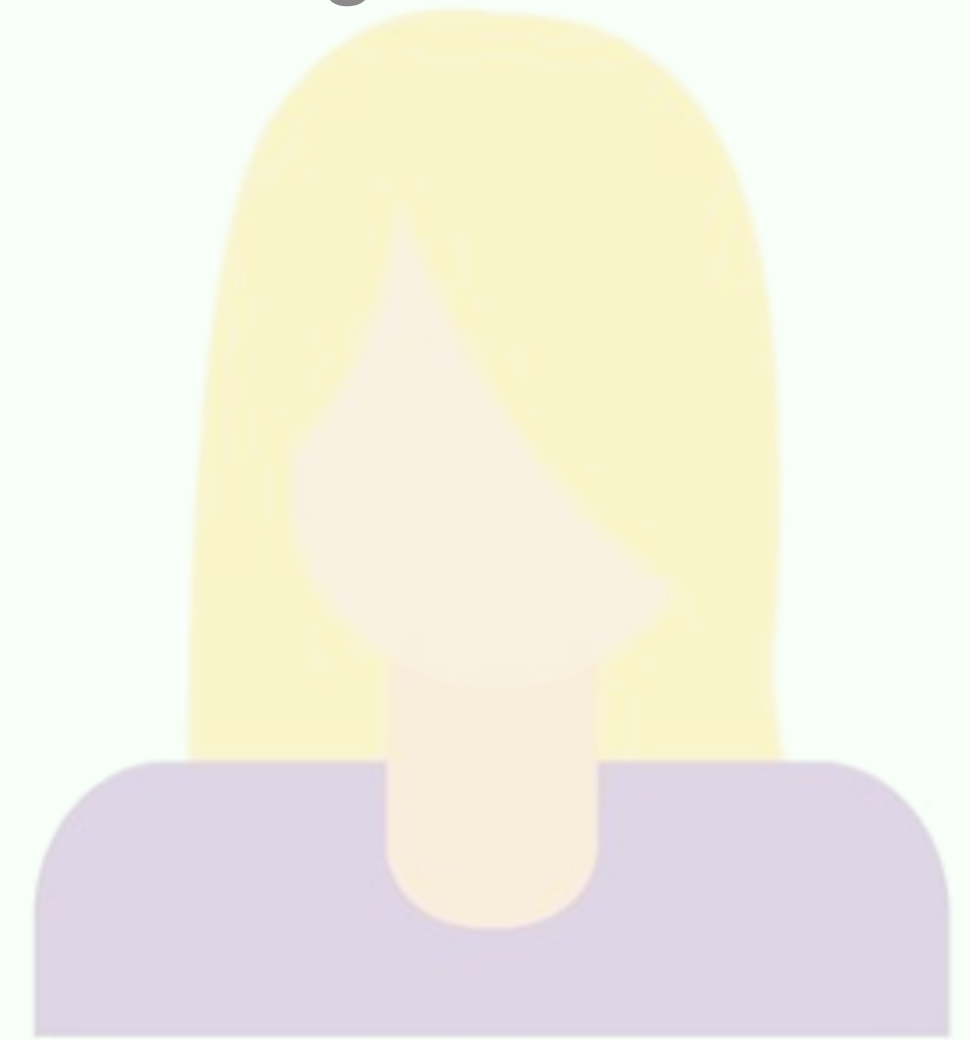
Will

Head Statistician



Monica

Programmer



Will asks **Monica** to create the tables and figures using his and **Aika**'s specifications.

Aika

MD, Clinical Head



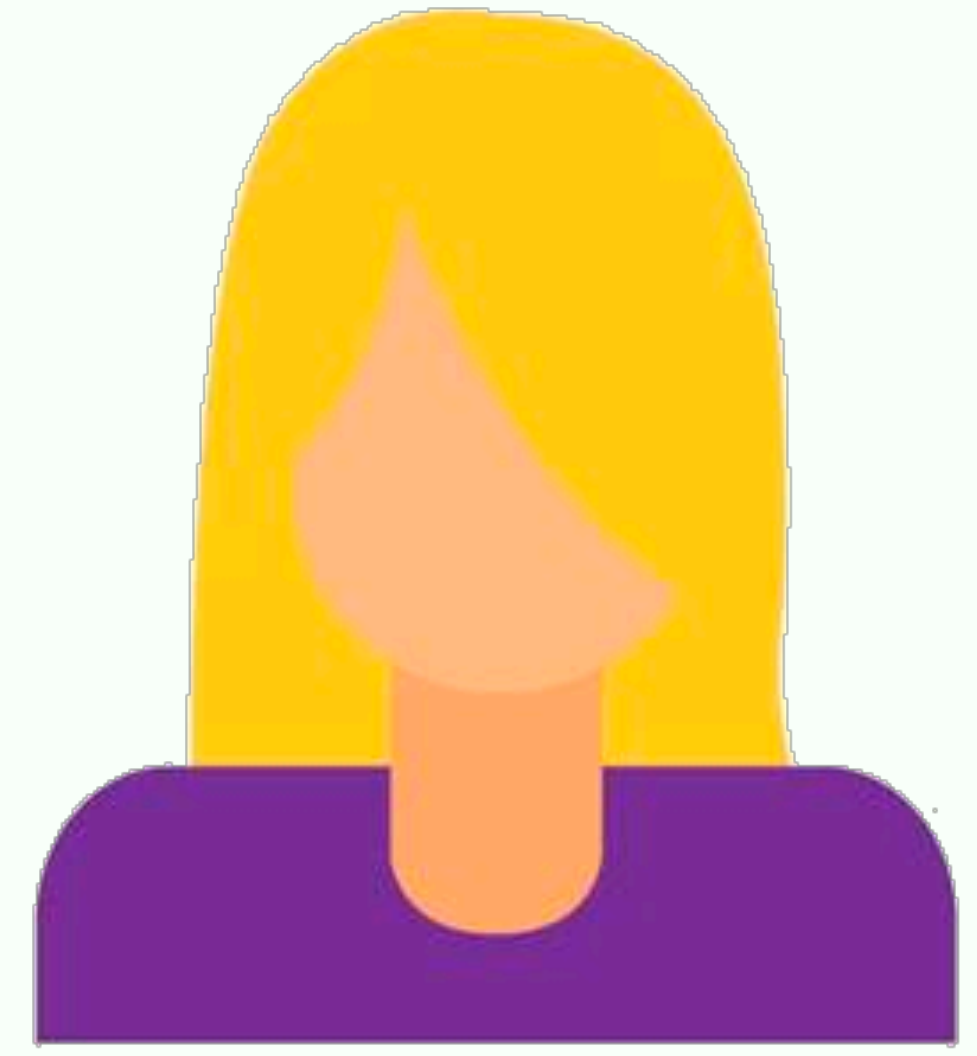
Will

Head Statistician

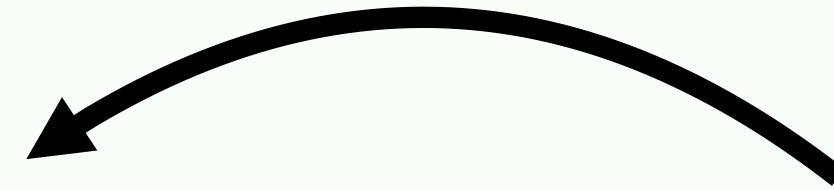


Monica

Programmer



Monica creates the tables and figures and sends them to **Will**.



Aika

MD, Clinical Head



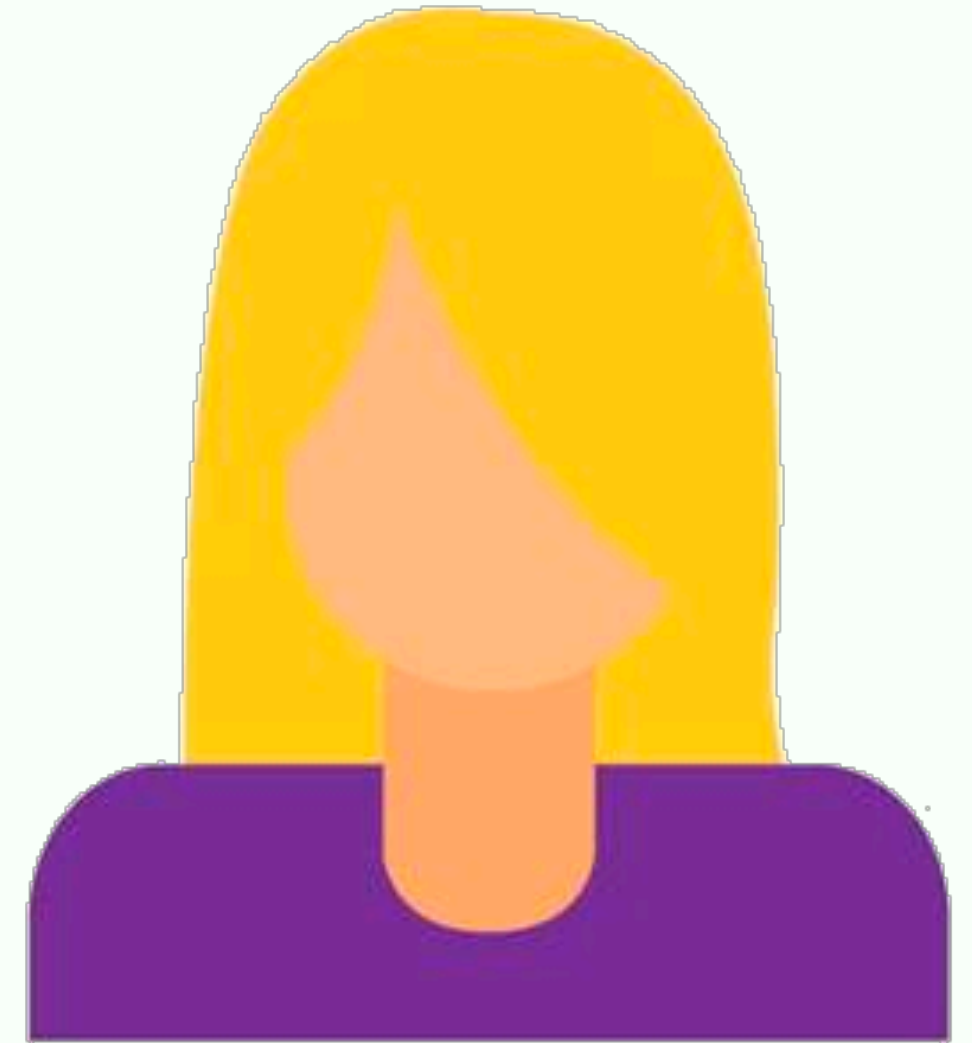
Will

Head Statistician



Monica

Programmer



Will asks **Monica** to make new tables based on the results.

Aika

MD, Clinical Head



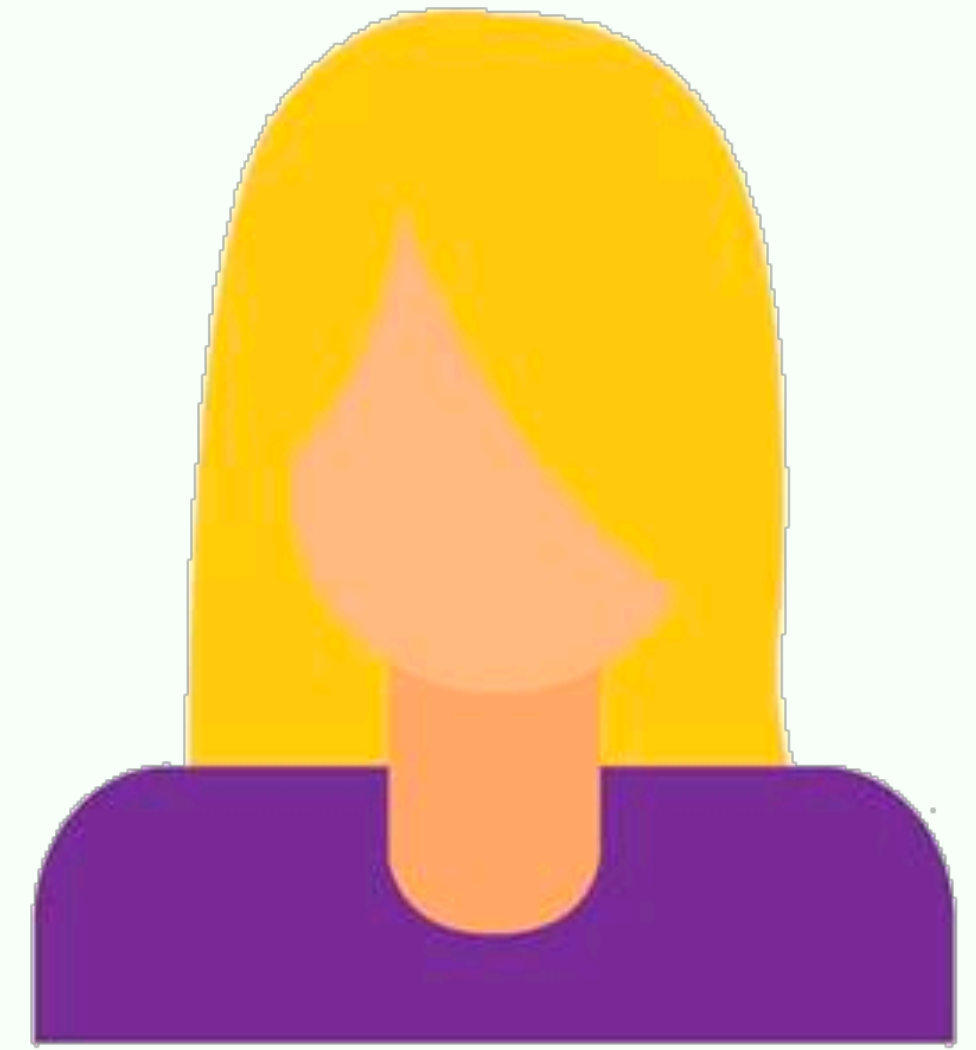
Will

Head Statistician

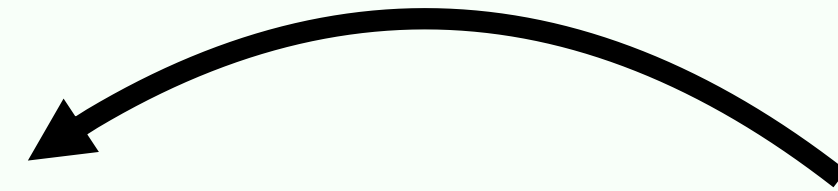


Monica

Programmer



Monica creates the new tables and figures and sends them to **Will**.



Aika

MD, Clinical Head



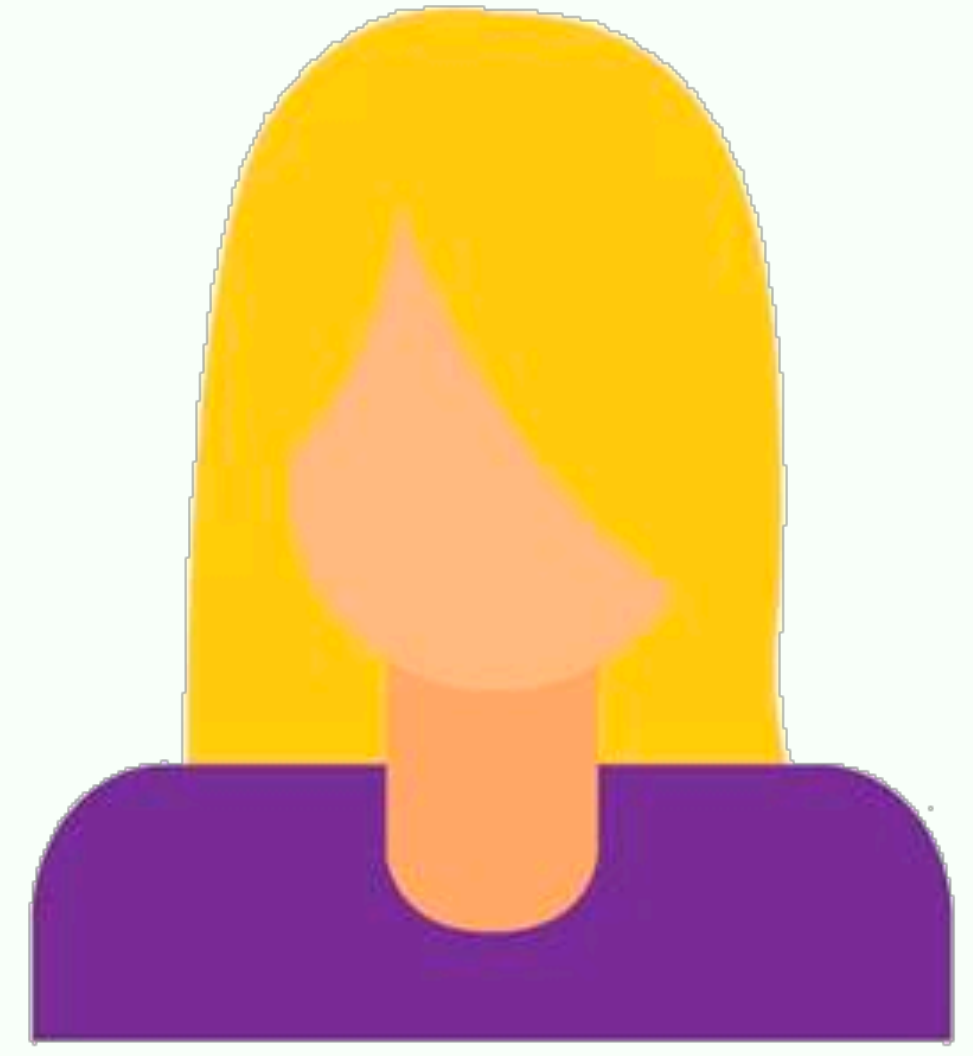
Will

Head Statistician

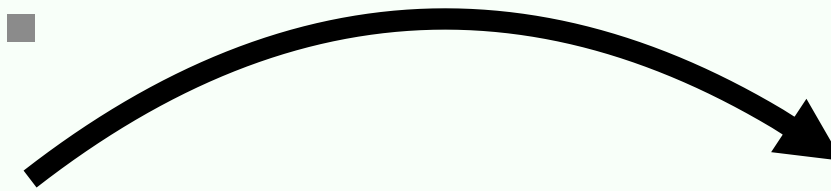


Monica

Programmer



Will asks Monica to revise the tables and figures....



Aika

MD, Clinical Head



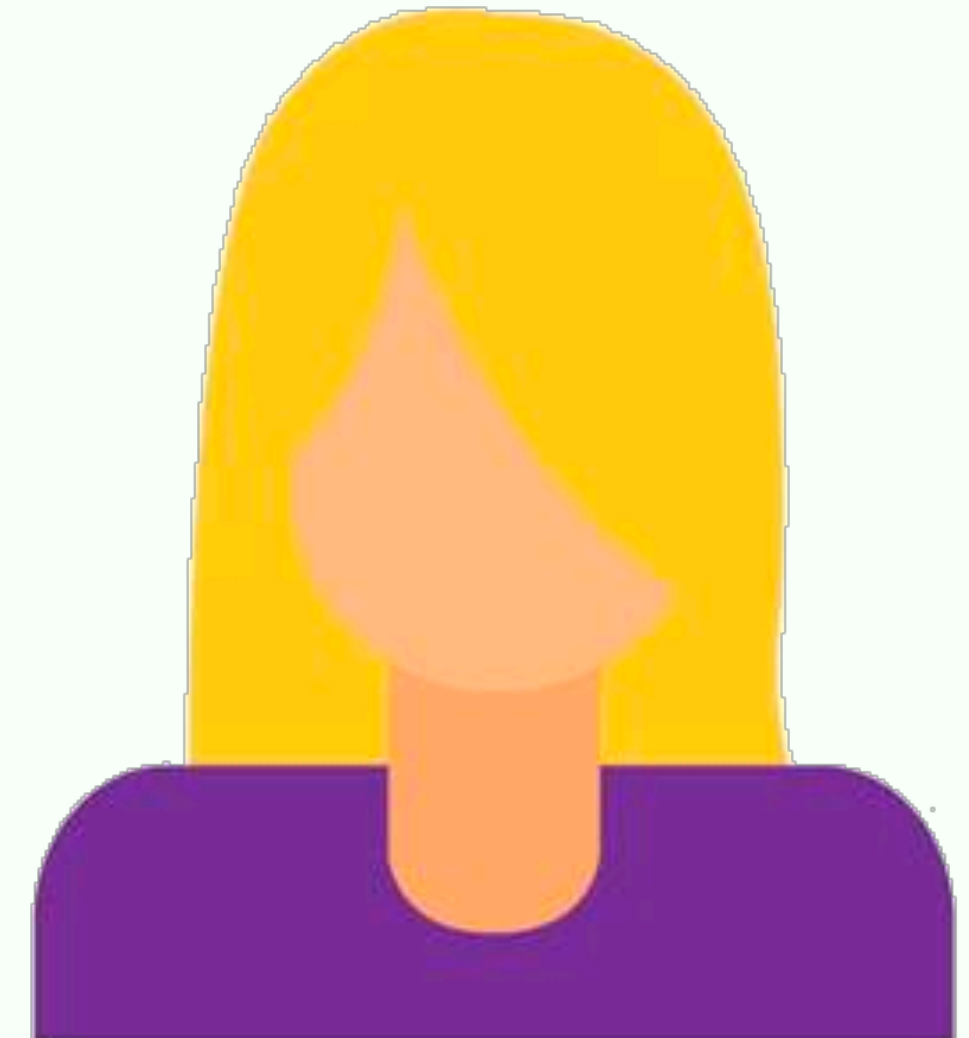
Will

Head Statistician



Monica

Programmer



After MANY iterations between
Will and **Monica**, **Will** shows the
results to **Aika**.

Aika

MD, Clinical Head



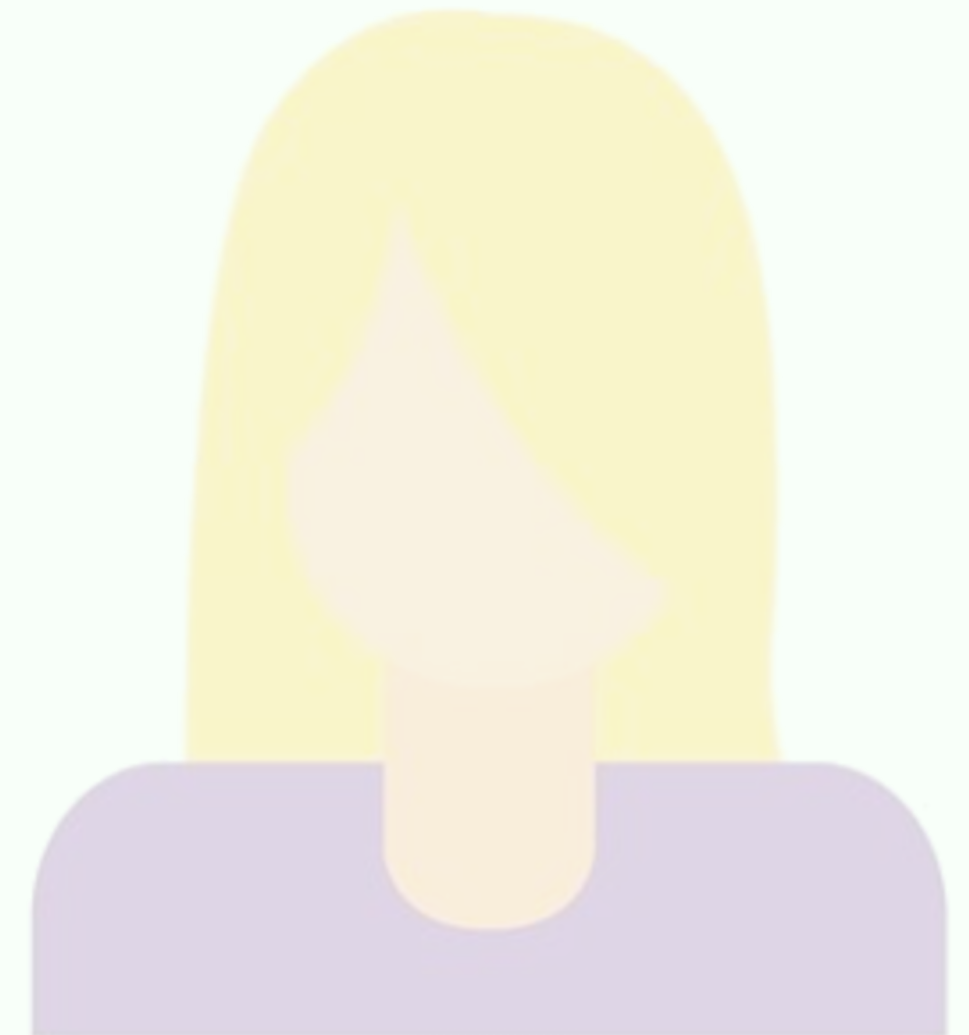
Will

Head Statistician



Monica

Programmer



ENTER tidyCDISC

Filter Data ▾

Type of Chart:

- ☒ Scatter Plot
- ☐ Spaghetti Plot
- ☐ Box Plot

Aika

MD, Clinical Head

Select x-axis:

Explanatory Variable

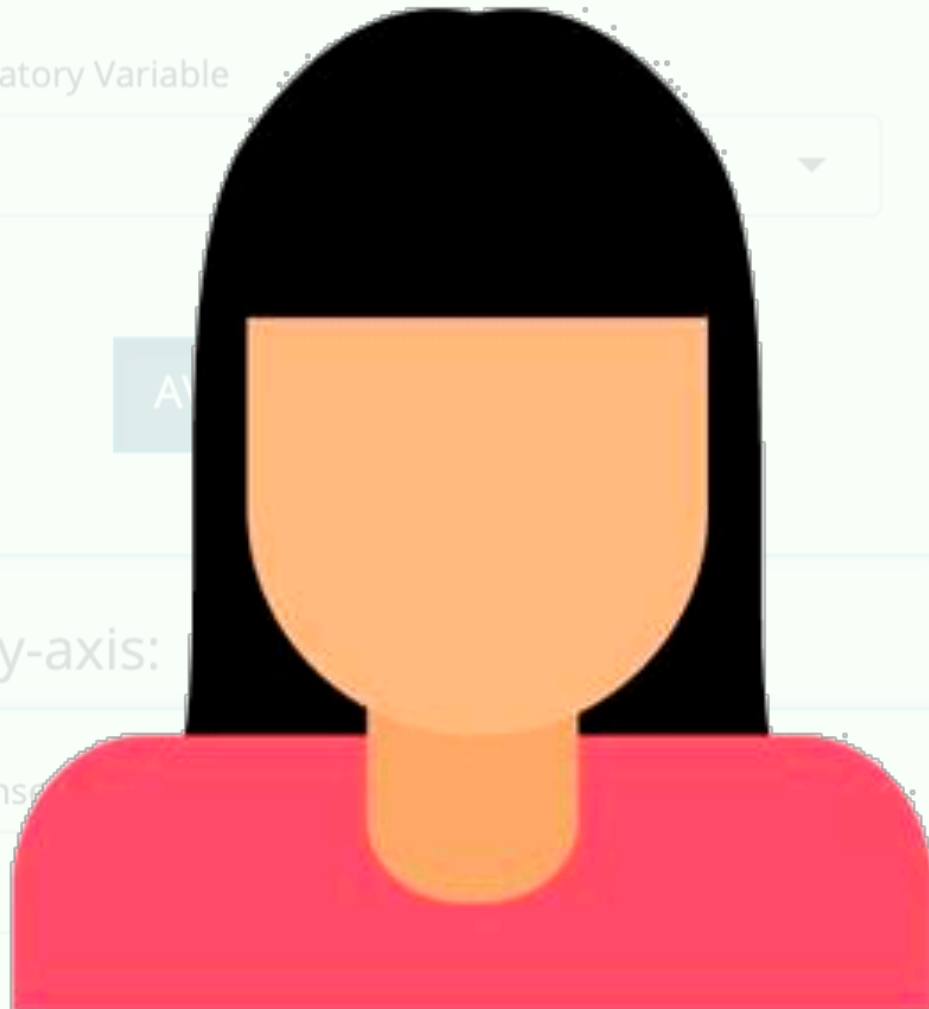
BILI

AST

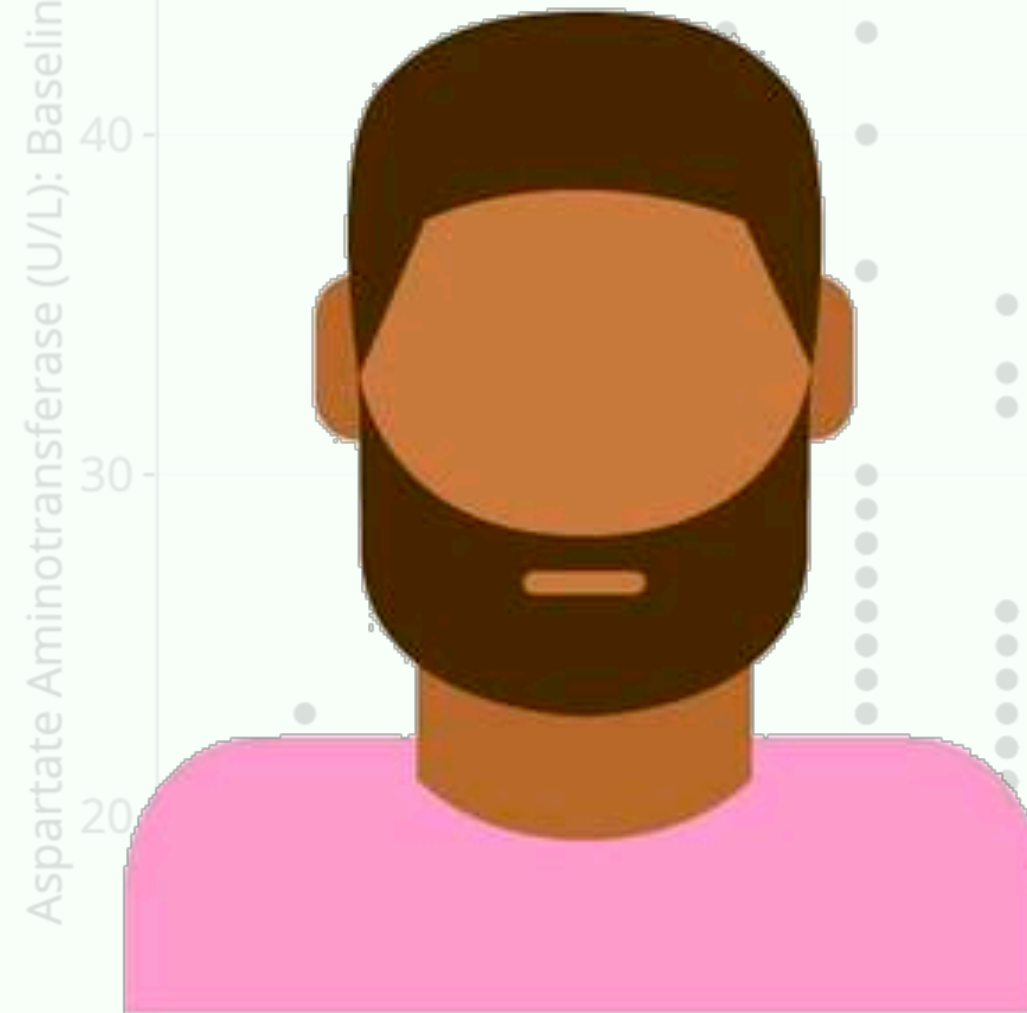
Select y-axis:

Response

AST



Will
Head Statistician



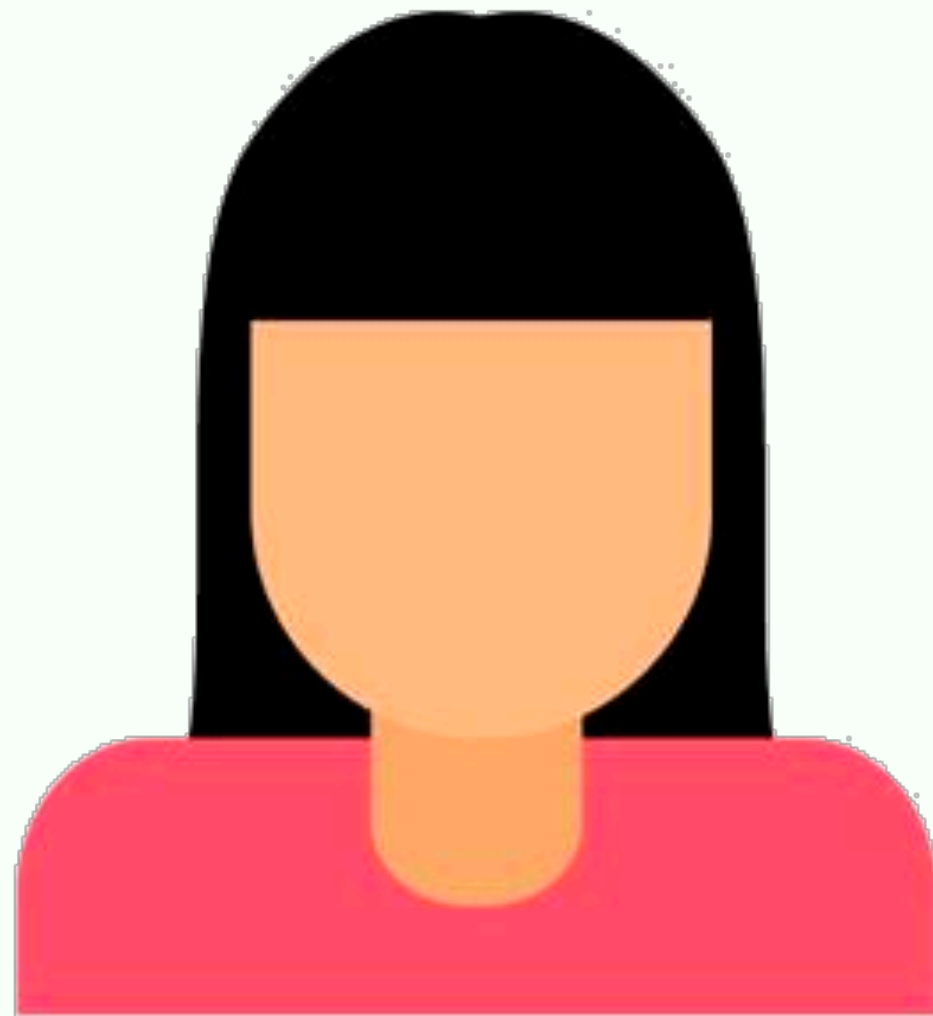
Monica
Programmer



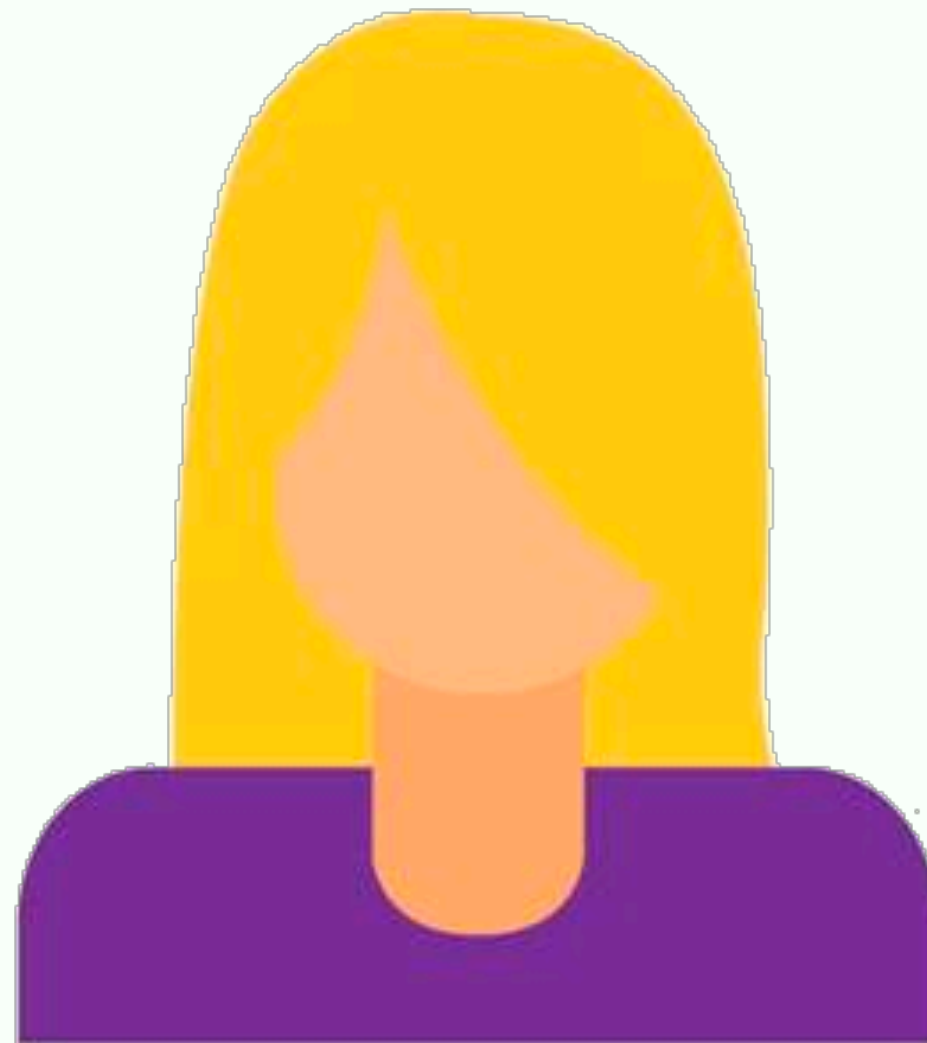
Will can use tidyCDISC to make tables
and figures instantly, only asking
Monica to program the tables **ONCE**



Aika can use tidyCDISC to
explore the data easily with her
domain expertise



Monica can use tidyCDISC to....



DEMO

bit.ly/tidyCDISC

CONCLUSION

Quick EDA



Modular



Open Source

The Team

Aaron Clark

Maya Gans

Marly Gotti

Robert Krajcik

Nate Mockler

Thank You

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Nate Mockler: nate.mockler@biogen.com